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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,068

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Haydn N.G. Wadley

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EXAMINER

AUSTIN, AARON

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,068	Applicant(s) WADLEY, HAYDN N.G.	
	Examiner AARON S. AUSTIN	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 36-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/6/07(2)</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, claims 1-35 in the reply filed on 5/9/07 is acknowledged. Applicant's further traversal in the Reply of 12/10/07 is noted. In response, the maintenance of the rejection is clarified as outlined below. The traversal is on the ground(s) that the contribution over the prior art is provided. This is not found persuasive because this fails to differentiate the present claims from the prior art cited in the restriction requirement such that a contribution over the prior art is identified to qualify as a special technical feature. Further, Applicant fails to address the argument that the special technical feature is not commonly shared between the restricted groups.

The requirement is still deemed proper and is therefore made FINAL.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it has been submitted as the front sheet of International Publication Number WO 2004/011245 rather than a single paragraph on a separate sheet. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-9, 11-14, 16, 17-19, 28 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, and 19 recite the limitation "said cellular cores" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. In particular, it is not clear as to whether the limitation refers to the cellular cores of the first array, the second array, or some combination thereof.

Regarding claims 28 and 32, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by

such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 28 and 32 recites the broad recitation of particular structures, and the claims also recite examples of the structures in parenthesis which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102 and 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-35 are rejected under 35 U.S.C. 102(a and e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Colvin (US Patent No. 6,418,832).

Colvin teaches a structure comprising a first array of cellular housings and a plurality of cellular cores 45 in the cellular housings (Fig. 2 and Fig. 5A & 5B).

Regarding the bonding of the cellular housings, the cellular housings 76 are bonded together via connectors 81 to form an array of housing structures (Figs. 2 and 3). Even if integral with the housings themselves, the connectors 81 are considered to “bond” the cellular housings 76 due to the bonding of the molecules constituting the structure. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the cellular housings 76 and connectors 81 and bond them together to form the array, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

Nerwin v. Erlichman, 168 USPQ 177, 179.

Regarding claim 2, a second array of a plurality of cellular housings and at least one cellular core in the cellular housings is taught (Fig. 2 and Fig. 5A & 5B).

Regarding claims 3 and 4, first and second panels are disposed on the arrays 74 and 77 in positions distal from each other (Fig. 4).

Regarding claims 5, 10, 15, and 20, the cellular housing may have a hexagonal, rectangular, conical, or other polygonal shape (column 4, lines 13-39).

Regarding claims 6, 11, 16, and 21, the cellular core may include spherical portions (Fig. 9).

Regarding claims 7, 8, 9, 12, 13, 14, 17, 18, 19, 22, 23, and 24 the cellular cores may include porous foams (column 5, lines 11-17).

Regarding claims 25, 29, and 33, the panels may be bonded by adhesive to the arrays (column 3, line 65).

Regarding claims 26, 27, 28, 30, 31, and 32, the claims represent intended use.

Regarding claims 34 and 35, the cellular housings and cores may comprise plastics other pliable materials (column 4, lines 3-5, column 5, lines 11-60).

Response to Arguments

Applicant's arguments, see the Remarks, filed 12/10/07, with respect to the rejections under 35 USC 112 second paragraph (except as outlined above) and the rejections over Geyer et al. (US 4,453,367) alone and in combination have been fully considered and are persuasive in light of the present amendments. These rejections have been withdrawn.

Applicant's remaining arguments filed 12/10/07 have been fully considered but they are not persuasive.

With respect to the restriction requirement, the maintenance of the rejection is clarified as outlined above. In particular, the previous traversal was on the ground(s) that the contribution over the prior art is provided. This is not found persuasive because this fails to differentiate the present claims from the prior art cited in the restriction requirement such that a contribution over the prior art is identified to qualify as a special

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technical feature. Further, Applicant fails to address the argument that the special technical feature is not commonly shared between the restricted groups. As such, a lack of unity is deemed to be present as set forth in the restriction requirement.

With respect to the specification, Applicant argues the objection to the abstract should be withdrawn as it was submitted as part of the application in a US National stage filing for which communication to the International Bureau is all that is required (35 USC 371(c)(2) and 37 CFR 1.495(b)). However, the support for Applicant's argument provides the guidelines for avoiding abandonment of the application rather than setting forth the requirements for patentability. More particularly, 35 USC 372 requires that "All questions of substance and, within the scope of the requirements of the treaty and Regulations, procedure in an international application designating the United States shall be determined as in the case of national applications regularly filed in the Patent and Trademark Office." As such, the objection to the specification is deemed proper.

With respect to the Colvin reference, Applicant first argues there is no identifiable cellular housing structures bonded together to form an array of housing structures as claimed, pointing to Figs. 5A-5B for reference. However, the cellular housings 76 are bonded together via connectors 81 to form an array of housing structures (Figs. 2 and 3). Even if integral with the housings themselves, the connectors 81 are considered to "bond" the cellular housings 76 due to the bonding of the molecules constituting the

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structure. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the cellular housings 76 and connectors 81 and bond them together to form the array, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

Nerwin v. Erlichman, 168 USPQ 177, 179.

Second, Applicant argues there is no identifiable cellular core structure disposed within the cellular housing structures. In particular, Applicant suggests the foam material 45 has no defined structure and as such does not meet the limitations of the claims. However, Applicant's own specification describes open and closed cell foams as suitable cellular structures for use in the claimed invention (page 6, lines 11-28). Further, the cellular core may include filling material and an exemplary shape of the material is shown as a sphere (Fig. 9; column 5, lines 18-35). As such, Applicant's arguments are not found to be convincing.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON S. AUSTIN whose telephone number is (571)272-8935. The examiner can normally be reached on Monday-Friday: 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John J. Zimmerman/
Primary Examiner, Art Unit 1794

ASA